

New Lycaenid Butterflies from the Philippines

Hisakazu HAYASHI

9-1, Tamatsukuri-honmachi, Tennoji-ku, Osaka 543

The present paper deals with new species and subspecies of lycaenid butterflies belonging to the genera *Deramas*, *Narathura*, *Flos*, *Horaga*, *Pratapa*, *Neocheritra*, *Chliaria* and *Sinthusia* recently discovered in the Philippines. The holotypes designated herein are all to be preserved in the National Science Museum (Nat. Hist.), Tokyo.

Deramas treadawayi H. HAYASHI, sp. nov.

(Figs. 1, 2, 45)

Male. Length of forewing: 17–18 mm.

Upperside: Black with shining greenish blue streaks; forewing with an upper blue streak starting at the base, running along cubitus and vein 4, but not extending to the middle of space 2, no spot in subapical area; hindwing with blue area extending to space 4, the base of cell sparsely dusted with blue scales.

Underside: Reddish brown, postdiscal striae outwardly edged with whitish scales; forewing with a postdiscal stria regular; hindwing with a stria remarkably shifted based in space 4, a small black tornal spot in space 1b, reddish orange area conspicuous and inwardly becoming yellowish.

Male genitalia: Valvae with two processes; ampulla short; harpe rather long with blunt tip; costal process absent; phallus strongly curved ventrad.

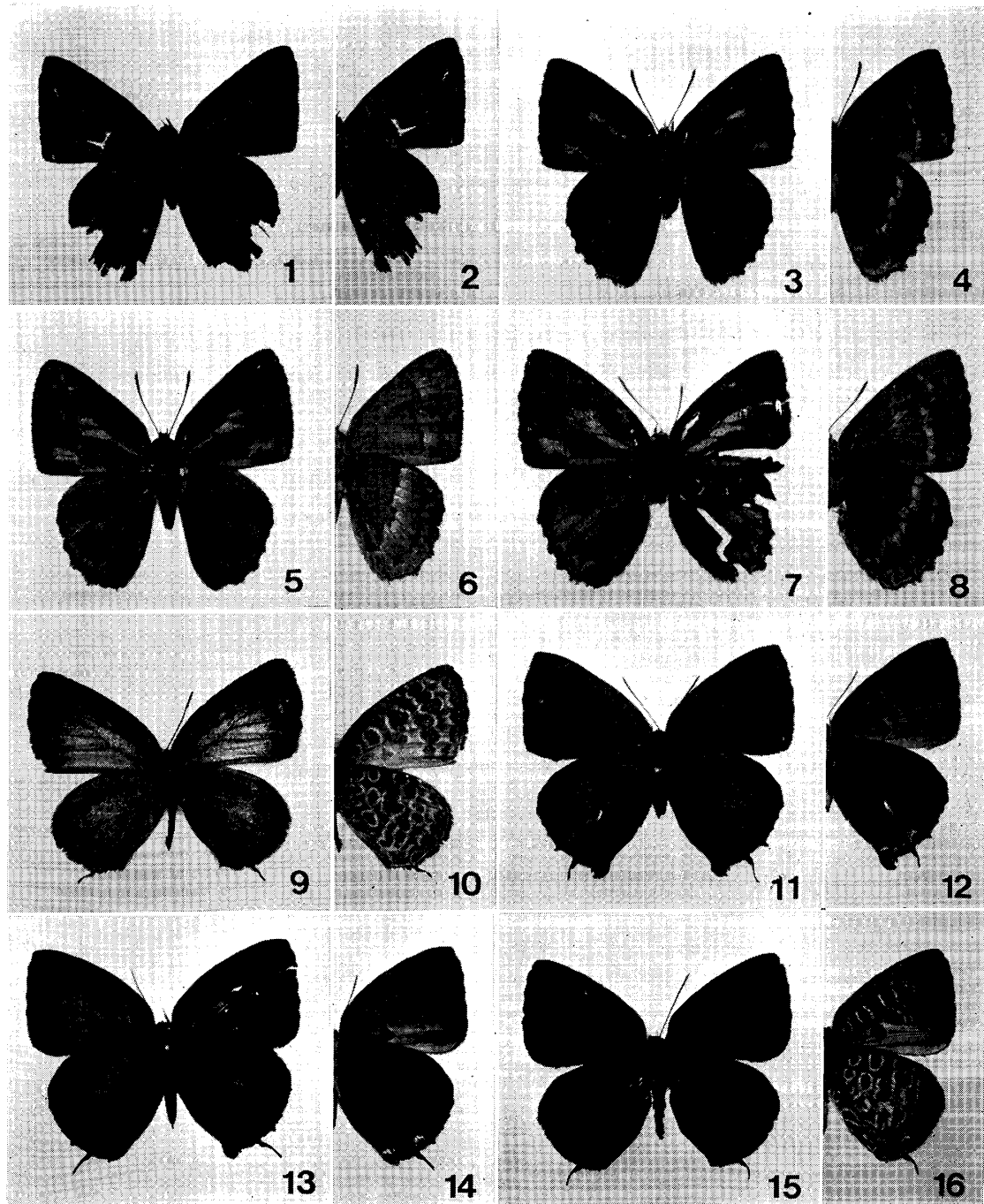
Female. Unknown.

Distribution: Mindanao (Mt. Apo).

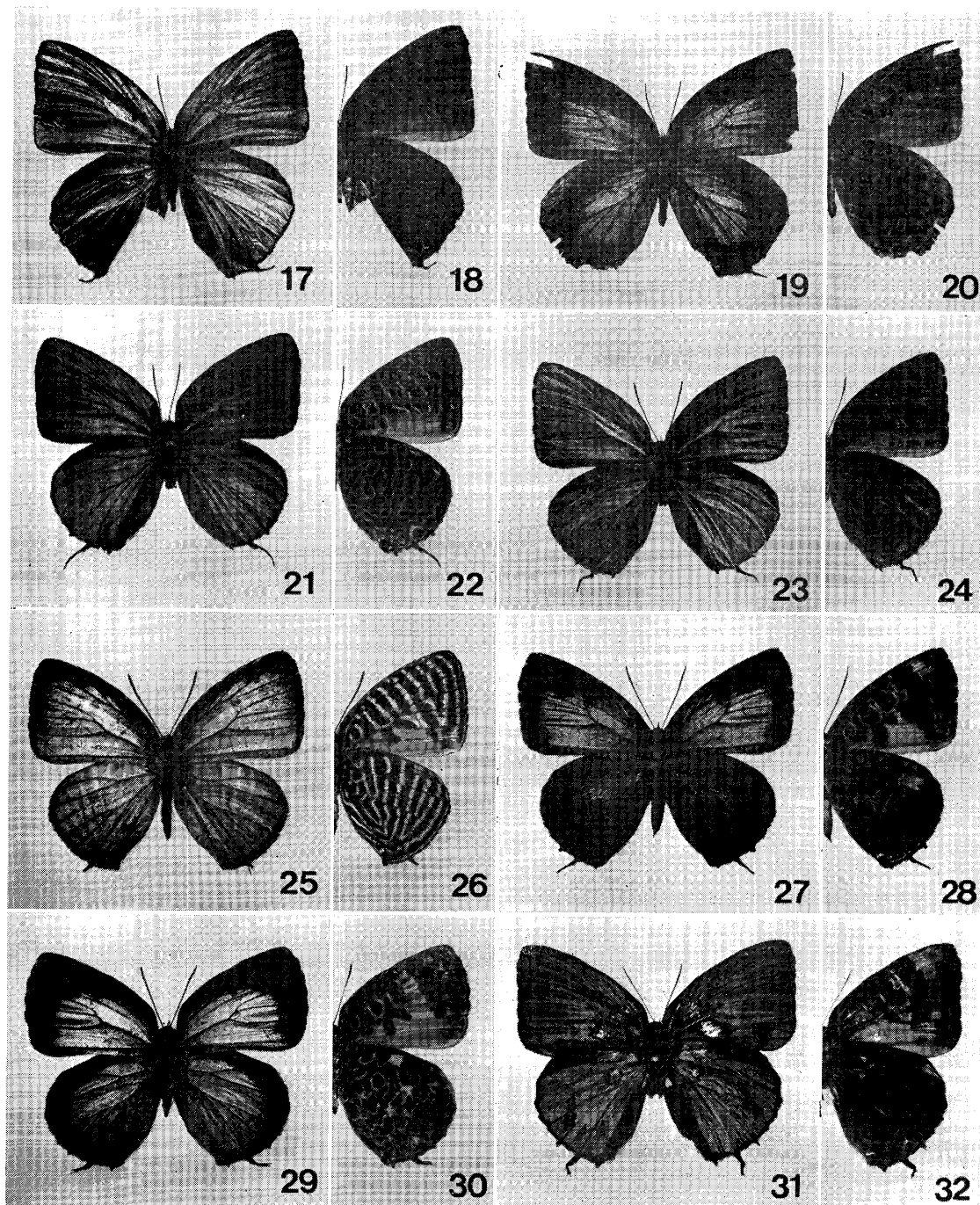
Holotype: ♂, Mt. Apo, Mindanao, January, 1980; paratypes: 2 ♂, Mt. Apo, Mindanao, February, 1979; 3 ♂, Mt. Apo, Mindanao, January, 1980; 1 ♂, Mt. Apo, Mindanao, June, 1979, R. M. LUMAWIG leg; 1 ♂, Mt. Apo, Mindanao, January, 1980, R. M. LUMAWIG leg; 1 ♂, Mt. Apo, Mindanao, February, 1980, R. M. LUMAWIG leg.

The present new species resembles *Deramas tomokoae* H. HAYASHI known from Mindanao, but differs from the latter in the following points: 1) No blue spot in subapical area on the upperside of forewing instead of two blue spots in *tomokoae*; 2) the blue streak on the upperside of forewing does not extend to the middle of space 2, while it extends to the middle of space 2 in *tomokoae*; 3) the colour of streaks on the upperside is more bluish; 4) underside ground colour is reddish brown, while less reddish in *tomokoae*; 5) the striae on the underside of forewing is rather regular, while completely dislocated at vein 4 in *tomokoae*; 6) the striae on the underside of hindwing are irregular and remarkably shifted in space 4, while rather regular in *tomokoae*; 7) the tornal orange area on the underside of hindwing is larger and more conspicuous.

The specific name is dedicated to Mr. C. TREADAWAY, Frankfurt am Main, West Germany for his contribution to the Philippine lepidopterology and his kindness and continuous guidance.



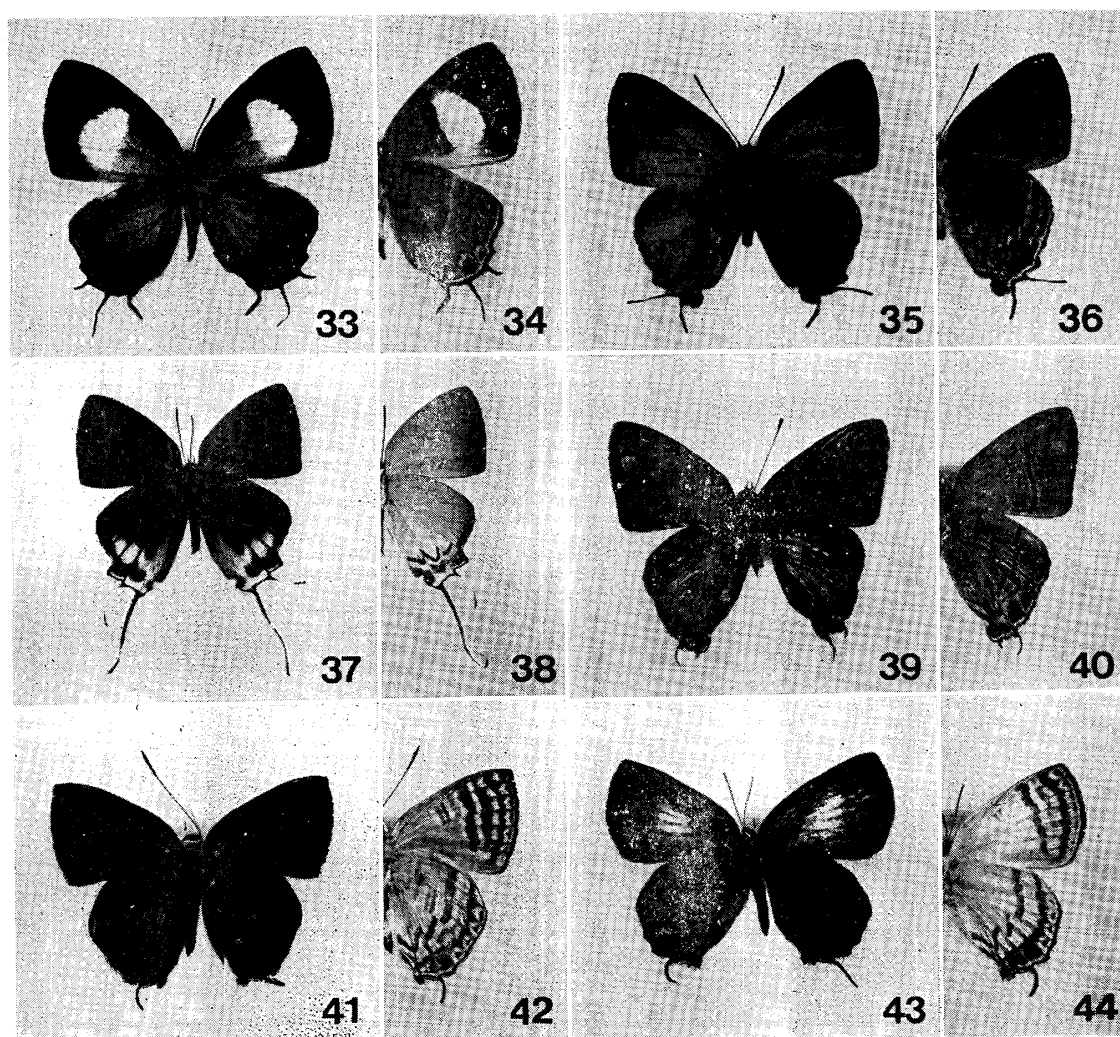
Figs. 1-16. Holotypes of new Philippine lycaenid butterflies, upperside (1, 3, 5, 7, 9, 11, 13, 15), underside (2, 4, 6, 8, 10, 12, 14, 16). — 1-2. *Deramas treadawayi* sp. nov., ♂. — 3-4. *Deramas kawazoei* sp. nov., ♂. — 5-6. *Deramas philippinensis* sp. nov., ♂. — 7-8. *Deramas toshikoe* sp. nov., ♂. — 9-10. *Narathura schroederi* sp. nov., ♀. — 11-12. *Narathura cleander sugimotoi* ssp. nov., ♂. — 13-14. *Narathura philippina* sp. nov., ♀. — 15-16. *Narathura nishiyamai* sp. nov., ♂.



Figs. 17–18. Holotype of *Narathura hollowayi* sp. nov., upperside (17), underside (18).

Figs. 19–20. Female paratype of *Narathura hollowayi* sp. nov., upperside (19), underside (20).

Figs. 21–32. Holotypes of new Philippine lycaenid butterflies, upperside (21, 23, 25, 27, 29, 31), underside (22, 24, 26, 28, 30, 32). — 21–22. *Narathura pseudovihara* sp. nov., ♂. — 23–24. *Narathura sakaguchii* sp. nov., ♂. — 25–26. *Narathura aronya natsumiae* ssp. nov., ♀. — 27–28. *Narathura staudingeri negrosiana* ssp. nov., ♀. — 29–30. *Narathura alesia mio* ssp. nov., ♂. — 31–32. *Flos setsuroi* sp. nov., ♂.



Figs. 33–42. Holotypes of new Philippine lycaenid butterflies, upperside (33, 35, 37, 39, 41), underside (34, 36, 38, 40, 42). — 33–34. *Horaga albimacula katoï* ssp. nov., ♀. — 35–36. *Pratapa tyotaroi* sp. nov., ♂. — 37–38. *Neocheritra kurosawai* sp. nov., ♀. — 39–40. *Chliaria shirozui* sp. nov., ♂. — 41–42. *Sinthusa mindanensis yoshiae* ssp. nov., ♂.

Figs. 43–44. Female paratype of *Sinthusa mindanensis yoshiae* ssp. nov., upperside (43), underside (44).

***Deramas kawazoei* H. HAYASHI, sp. nov.**

(Figs. 3, 4, 46)

Male. Length of forewing: 13–15 mm.

Upperside: Black with narrow bluish green streaks; forewing with entirely black cell, bluish green scales obsoletely present in spaces 4, 5 and 6; bluish green streaks on dorsum and spaces 1b, 2 and 3, and chequered cilia; hindwing with obsolete bluish green streaks, and chequered cilia.

Underside: Pale reddish brown, postdiscal stria outwardly edged with whitish scales; forewing with postdiscal stria concaved in space 3, the area between submarginal line and a small black spot in space 1b becoming whitish; hindwing with

rather irregular postdiscal striae, an obscure small black tornal spot in space 1b, tornal area becoming whitish.

Male genitalia: Valvae with two processes; ampulla slender and acutely curved; harpe stout, with blunt tip; phallus large, strongly bent ventrad.

Female. Unknown.

Distribution: Marinduque.

Holotype: ♂, Marinduque, April, 1979.

The present new species resembles *Deramas ikedai* H. HAYASHI known from Mindanao, but differs from the latter in the following points: 1) The cilia of both the wings is chequered, while chequered only on the hindwing in *ikedai*; 2) the colour on the underside is pale reddish brown, while greyish dark brown in *ikedai*; 3) the postdiscal stria on the underside is edged with white, while edged with grey in *ikedai*; 4) the postdiscal stria on the underside is irregular, while rather regular in *ikedai*.

This new species is named after Mr. Akito KAWAZOÉ, Toyonaka City.

***Deramas philippinensis* H. HAYASHI, sp. nov.**

(Figs. 5, 6, 47)

Male. Length of forewing: 14–15 mm.

Upperside: Black with bluish green streaks; forewing with entirely black cell, bluish green streaks on dorsum and in spaces 1b, 2 and 3; hindwing with bluish green extending to space 4, the base of cell sparsely dusted with bluish green scales.

Underside: Pale brown with dark brown postdiscal lines edged by whitish colour; faint black and orange submarginal spots in space 1b on both the wings.

Male genitalia: Valvae with two processes; ampulla longer and dentate; harpe short; a small dentate projected area in the costal process; phallus strongly curved ventrad.

Female. Unknown.

Distribution: Marinduque.

Holotype: ♂, Bactigon, Bueno Bista, Marinduque, April, 1979; paratypes: 16 ♂, same as the holotype; 5 ♀, Bactigon, Bueno Bista, Marinduque, July, 1979.

The present new species resembles *Deramas ikedai* H. HAYASHI known from Mindanao, but differs from the latter in the following points: 1) The bluish green streaks on the upperside of forewing are more conspicuous; 2) the ground colour of the underside is much paler; 3) the postdiscal line on the hindwing is widely edged with white, while it is narrow and not white in *ikedai*.

***Deramas toshikoe* H. HAYASHI, sp. nov.**

(Figs. 7, 8, 48)

Male. Length of forewing: 15 mm.

Upperside: Black with shining bluish green streaks; forewing with a very narrow green streak above cubitus, an obscure green spot in space 6, an oblique green spot in space 1b, a green streak along vein 1b, and chequered cilia; hindwing with entirely

black cell, green area extending from spaces 1b to 5, elongate black postdiscal spots spreading astride on veins 2, 3 and 4, and chequered cilia.

Underside: Pale brown on both the wings, with dark brown postdiscal striae widely edged with white, and obscure whitish submarginal striae; hindwing almost white in dorsal area, with the orange spot in space 1b rather conspicuous, though that of the forewing is vestigial.

Male genitalia: Valvae with two processes; ampulla stout and roughly dentate; harpe very short, with round tips; costal process joining the opposite valva by membrane at its proximal end; phallus rather slender and moderately bent ventrad.

Female. Unknown.

Distribution: Leyte.

Holotype: ♂, Hinungan, South Leyte, 10. August, 1979.

The present new species resembles *Deramas tomokoae* H. HAYASHI known from Mindanao, but differs from the latter in the following points: 1) The cilia of the forewing is chequered, while it is not chequered in *tomokoae*; 2) the streaks on the upperside are more greenish and the green streak along the cubitus on the forewing is much broader; 3) the postdiscal stria on the underside is widely edged with white, while it is edged with pale brown in *tomokoae*; 4) the postdiscal stria on the hindwing is irregular, while it is rather smooth in *tomokoae*.

The specific name is dedicated to my mother.

Narathura schroederi H. HAYASHI, sp. nov.

(Figs. 9, 10)

Female. Length of forewing: 14–15 mm.

Upperside: Bluish white, darker basad, slightly tinged with purple, dark brown

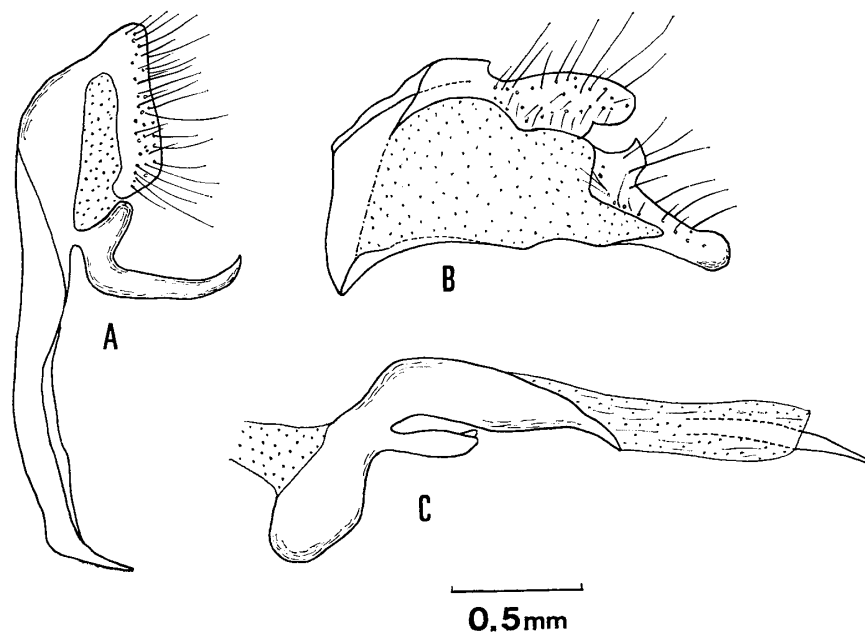


Fig. 45. *Deramas treadawayi* sp. nov., male genitalia: (A) lateral aspect of ring; (B) inner aspect of right valva; (C) lateral aspect of phallus.

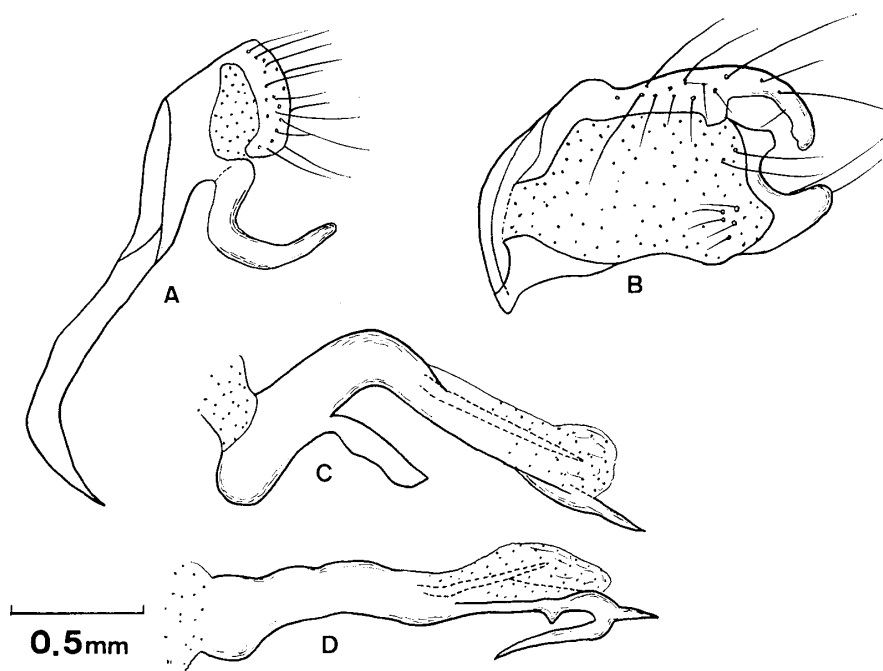


Fig. 46. *Deramas kawazoei* sp. nov., male genitalia: (A) lateral aspect of ring; (B) inner aspect of right valva; (C) lateral aspect of phallus; (D) dorsal aspect of phallus.

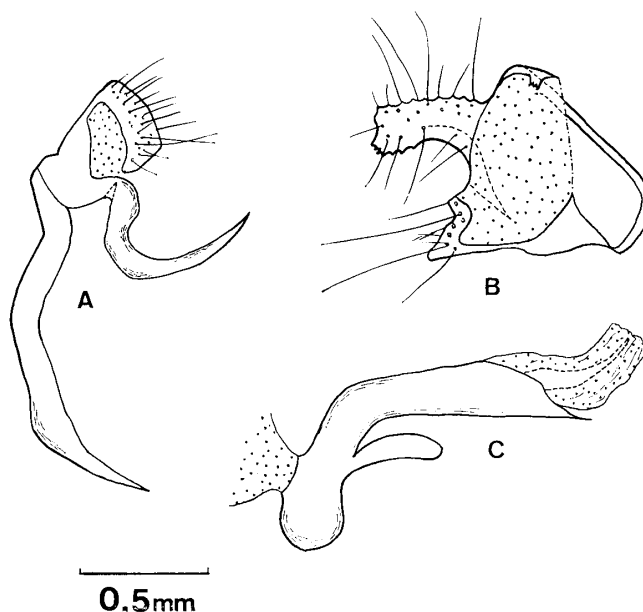


Fig. 47. *Deramas philippinensis* sp. nov., male genitalia: (A) lateral aspect of ring; (B) inner aspect of left valva; (C) lateral aspect of phallus.

border broad, dark spot at cell-end; tail single, black, with the tip white.

Underside: Pale brown, whitish outwards; forewing with a costal spot in space 10, a postdiscal spot in space 4 on a straight line with the spots in spaces 5 and 6, a postdiscal spot in space 9 in continuation of those in spaces 4, 5 and 6; hindwing

without a spot in the mid space 8 or at the extreme base of space 6, spot on discocellular extremely large.

Male. Unknown.

Distribution: Palawan.

Holotype: ♀, Orangan, Palawan, March, 1978; paratype: 1 ♀, Irawan, Palawan, 9. September, 1966, C. TREADAWAY leg.

The present new species resembles *Narathura varro* FRUHSTORFER, but differs from the latter in the following points: 1) Smaller in size; 2) a costal spot is present in space 10 on the underside of forewing, while it is absent in *varro*; 3) no whitish area below costa inside the discal band on the underside of hindwing, while it is present in *varro*; 4) the spot on discocellular on the underside of hindwing is much larger.

The specific name is dedicated to Dr. H. SCHRÖDER of Forshungs-Institut und Naturmuseum Senkenberg, Frankfurt am Main, West Germany for his contribution to the Philippine lepidopterology.

Narathura cleander sugimotoi H. HAYASHI, subsp. nov.

(Figs. 11, 12)

Male. Length of forewing: 23 mm.

Tornal lobe of hindwing conspicuously projecting.

Upperside: Dark shining blue, with black border 1 mm. in width; hindwing with broad black costa; tail single, black, with the tip white.

Underside: Dark brown; forewing without a spot in space 10, discal band unbroken; hindwing with postdiscal spots in spaces 6 and 7 in a line, tornal greenish blue scales conspicuous.

Female. Unknown.

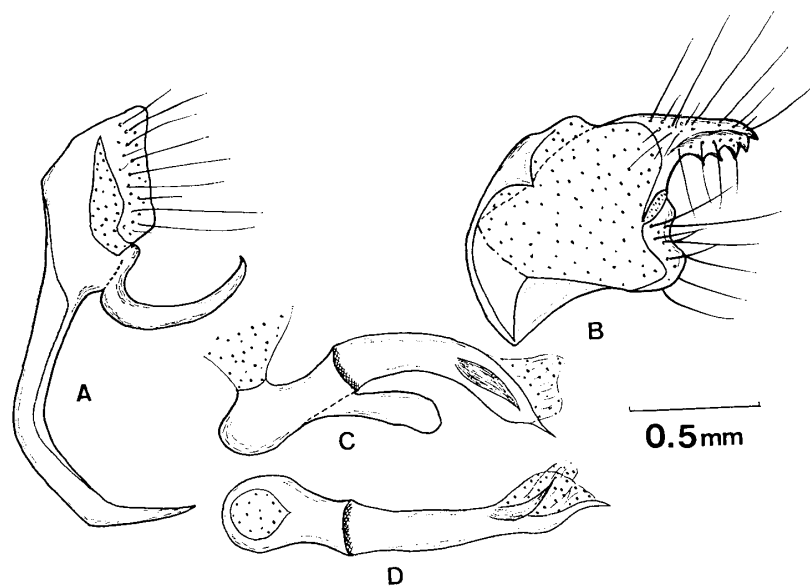


Fig. 48. *Deramas toshikoe* sp. nov., male genitalia: (A) lateral aspect of ring; (B) inner aspect of right valva; (C) lateral aspect of phallus; (D) dorsal aspect of phallus.

Distribution: Mindanao and Leyte.

Holotype: ♂, Catmon, Saint Bernard, Leyte, 4. August, 1978; paratype: 1 ♂, Mt. Apo, Mindanao, January, 1980.

The present new subspecies differs from ssp. *aphadantas* CORBET from Malaya and ssp. *incerta* MOULTON from Borneo and Sumatra in the following points: 1) Upperside dark shining blue instead of purple blue in *incerta*; 2) the black border on the upperside of forewing is broader than in *incerta*, and narrower than in *aphadantas*, especially at the apex; 3) no spot in space 10 on the underside of forewing, while it is present in *aphadantas*; 4) tornal green on the underside of hindwing is much more conspicuous.

The subspecific name is named after Mr. Shirô SUGIMOTO, Hirakata City for his kindness and cooperation.

Narathura philippina H. HAYASHI, sp. nov.

(Figs. 13, 14)

Female. Length of forewing: 26 mm.

Upperside: Dark purple blue, with very broad black border; forewing with a black spot at cell-end; hindwing with dark purple blue only in basal area; tail single, black, with the tip white; tornal lobe conspicuously projecting.

Underside: Dark brown, markings darker than the ground colour; forewing without a costal spot in space 10, postdiscal band partially dislocated at vein 4, postdiscal spot in space 9 narrower than that in space 6, and a straight line with spots in spaces 4–6; hindwing with postdiscal band completely dislocated at veins 2, 4 and 6, the spot in space 6 widely apart from cell-end bar and also from the spot in space 5, tornal greenish blue in spaces 1a–2, two tornal black spots in spaces 1a and 2.

Male. Unknown.

Distribution: Mindanao.

Holotype: ♀, Tandag, Surigao, Mindanao, April, 1979.

The present new species resembles *Narathura silhetensis* HEWITSON, but differs from the latter in the following points: 1) No costal spot in space 10 on the underside of forewing, while it is present in *silhetensis*; 2) the postdiscal band on the underside of hindwing is completely dislocated at vein 4, while it is only slightly dislocated in *silhetensis*; 3) the outer edge of the postdiscal spot in space 6 on the underside of hindwing is not so sinuous as in *silhetensis*; 4) the gap between the spot in space 5 and the cell-end bar is very wide.

Narathura nishiyamai H. HAYASHI, sp. nov.

(Figs. 15, 16, 49)

Male. Length of forewing: 17 mm.

Upperside: Dull purple blue, costal and distal margins black except for the costa of hindwing which is broadly black, subcostal and submarginal area no forewing and submarginal area on hindwing narrowly washed with bluish silver scales; tail single, black.

Underside: Grey brown, slightly tinged with purple, whitened largely on hindwing; forewing with a spot at base of space 10, postdiscal spot in space 4 shifted outwards out of the line with the spots in spaces 5 and 6; hindwing with postdiscal band broken at veins 6, postdiscal spot in space 6 outwardly convex, tornal area with two black spots and sparsely dusted with white and pale blue scales.

Male genitalia: Brachia stout, gently curved outwardly, with the apex strongly broadened; valvae small, distal half lingulate with rounded posterior margin, costa projecting proximally; phallus moderate, suprazonal portion of aedeagus nearly a half as long as subzonal portion, ventral half of the apex produced to pointed tip; juxta M-shaped.

Distribution: Mindanao and Leyte.

Holotype: ♂, Tandag, Surigao, Mindanao, March, 1979; **paratype:** 1 ♂, Catmon, Saint Bernard, Leyte, 1. January, 1978.

The present new species is very similar to *Narathura alitaeus* HEWITSON on the underside, but is easily distinguished from it on the upperside by the following points: 1) Dull purple blue, while deep purple blue in *alitaeus*; 2) subcostal and submarginal areas on the upperside of hindwing are narrowly washed with bluish silver scales, while no such coloration is present in *alitaeus*.

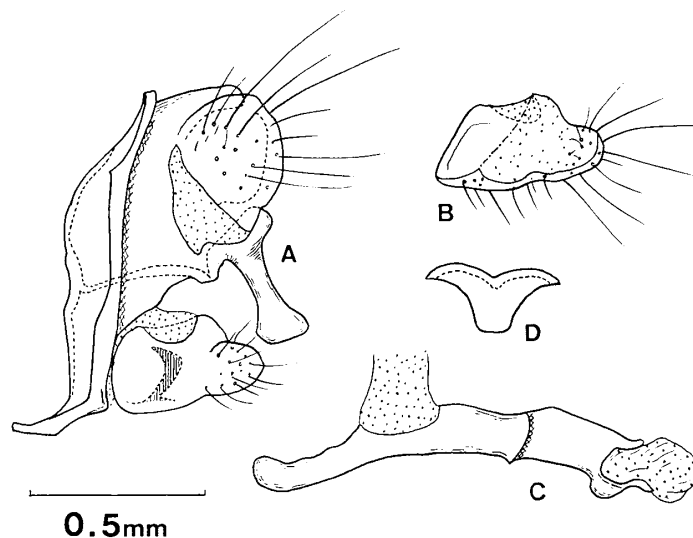


Fig. 49. *Narathura nishiyamai* sp. nov., male genitalia: (A) lateral aspect with phallus removed; (B) inner aspect of right valva; (C) lateral aspect of phallus; (D) juxta.

***Narathura hollowayi* H. HAYASHI, sp. nov.**

(Figs. 17–20, 50)

Male. Length of forewing: 31 mm.

Upperside: Shining blue, black border very narrow like a thread except for hindwing costa, cilia with a small white portion in space 1a; forewing with termen straight; hindwing with termen angulate at veins 6 and 3; tail single, black, with the tip white.

Underside: Brown, slightly tinged with purple; forewing with an obscure costal

spot in space 10, two spots in space 9, postdiscal band completely dislocated at vein 4, a spot at cell-end outwardly crenulate; hindwing with short cell which is much less than a half the length of the wing, postdiscal band dislocated at each vein except for vein 5, tornal area with two black spots in spaces 1a and 2, the former being larger, tornal area sparsely dusted with pale green scales in spaces 1a, 1b and 2.

Male genitalia: Brachia strongly curved outwards and tapered distally; valvae tapered distally with projected posterior margin; phallus long, more or less tapered towards apex in lateral view, apical opening oblique and narrowly edged with perivesical area in lateral view; juxta M-shaped.

Female. Length of forewing: 30 mm.

Upperside: Blue with slight violet tinge, black border very broad and broadest at apex.

Underside as in male.

Distribution: Mindanao, Leyte and Samar.

Holotype: ♂, Malitobog, Bukidnon, Mindanao, March, 1979; paratypes: 1 ♀, Catmon, Leyte, 18. April, 1978; 1 ♂, Rawis, Samar, 3. June, 1976; 1 ♂, Bukidnon, Mindanao, August, 1979; 1 ♀, W. Samar, 6. August, 1979; 2 ♂, W. Samar, 9. August, 1979.

The male of the present new species resembles that of *Narathura amantes* HEWITSON, but differs from the latter in the following points: 1) The black border on the upperside is thread-like, while it is very broad in *amantes*; 2) the obscure costal spot in space 10 on the underside of forewing is present, while it is absent in *amantes*; 3) the postdiscal spot in space 4 on the underside of forewing is in a line with those above it, while it shifts outwardly in *amantes*; 4) the dark spot under cell in the upper

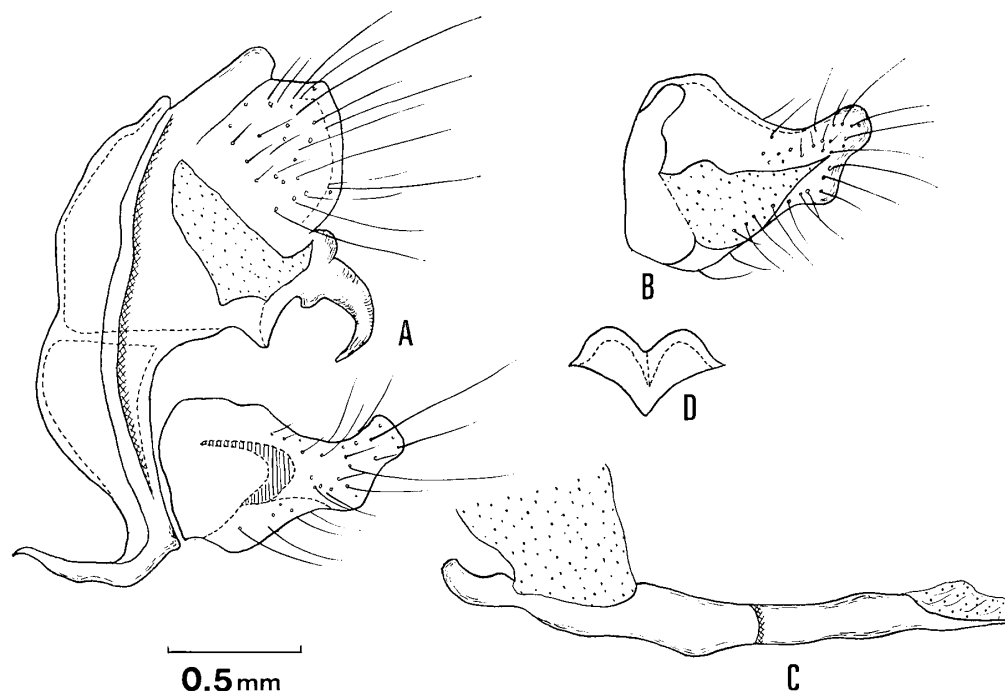


Fig. 50. *Narathura hollowayi* sp. nov., male genitalia: (A) lateral aspect with phallus removed; (B) inner aspect of right valva; (C) lateral aspect of phallus; (D) juxta.

part of space 1b on the underside of forewing is rounded, while it is long and extends to the postdiscal band in *amantes*; 5) the postdiscal spot in space 6 on the underside of hindwing is outwardly convex, while it is concave in *amantes*.

The new species name is dedicated to Dr. J. D. HOLLOWAY, Dorking, England.

Narathura pseudovihara H. HAYASHI, sp. nov.

(Figs. 21, 22, 51)

Male. Length of forewing: 22 mm.

Upperside: Dark purple blue, black border very narrow like a thread except for hindwing costa; hindwing with weak teeth at veins 1b and 3, tail 5.5 mm in length, cilia with elongate white portion in space 1a.

Underside: Dark brown, slightly tinged with purple, markings slightly darker than ground colour; forewing without costal spot in space 10, a spot at base of space 10 present above the central cell spot, postdiscal band dislocated at vein 4, basal spot in space 2 elongate; hindwing with cell shorter than a half the length of the wing, postdiscal band dislocated at veins 2, 4 and 6, postdiscal spot in space 6 rather round, not overlapping cell-end bar, two tornal spots in spaces 1a and 2, greenish blue scales in spaces 1a, 1b and 2.

Male genitalia: Brachia uniform in width, with apex entirely blunt; valvae bent dorsally and tapered towards apex, which ends in an acute tip; phallus bent upwards, tapered towards apex in lateral view, apical opening oblique with narrow perivesical area in lateral aspect; juxta M-shaped.

Female. Unknown.

Distribution: Mindanao.

Holotype: ♂, Tandag, Surigao, Mindanao, March, 1979.

The present new species resembles *Narathura vihara* CORBET, but differs from the

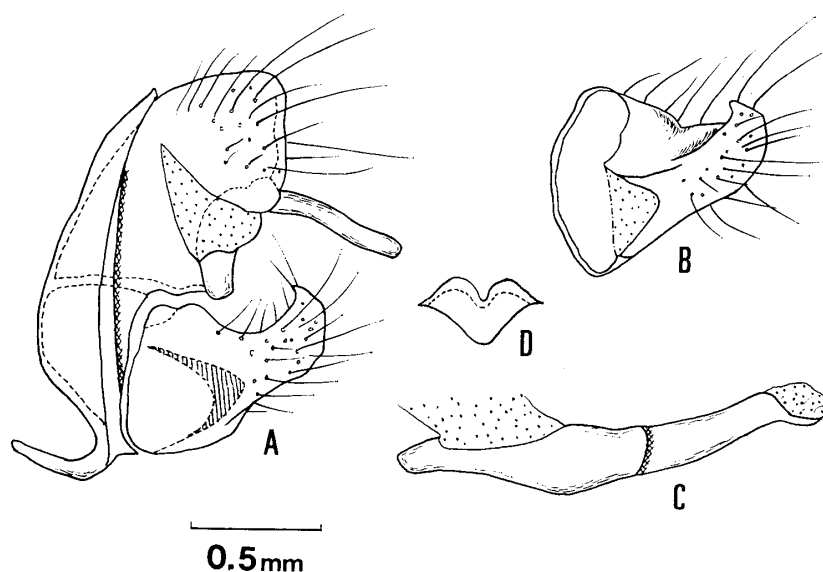


Fig. 51. *Narathura pseudovihara* sp. nov., male genitalia: (A) lateral aspect with phallus removed; (B) inner aspect of right valva; (C) lateral aspect of phallus; (D) juxta.

latter in the following points: 1) The colour of the upperside is more purplish; 2) the black border on the upperside is much narrower; 3) the tornal white cilia on the upperside of hindwing is larger; 4) the basal spot in space 10 on the underside of forewing is present, while it is absent in *vihara*; 5) the postdiscal spots in spaces 2 and 3 on the underside of hindwing ranges in a line, while those in *vihara* are out of line.

***Narathura sakaguchii* H. HAYASHI, sp. nov.**

(Figs. 23, 24, 52)

Male. Length of forewing: 20 mm.

Upperside: Blue, slightly tinged with purple, black border very narrow like a thread except for hindwing costa; hindwing with very weak teeth at veins 1b and 3; tail 4.5 mm in length, cilia with small white portion in space 1a.

Underside: Brown, slightly tinged with purple, markings darker than ground colour; forewing with costal and basal spots in space 10, postdiscal band dislocated at vein 4 and curved inwardly above vein 4, each spot of postdiscal band quadrate; hindwing with cell shorter than a half the length of the wing, postdiscal band slightly dislocated at veins 2, 4 and 6, postdiscal spot in space 6 quadrate, two tornal black spots in spaces 1b and 2, green scales in spaces 1a, 1b and 2.

Male genitalia: Brachia uniform in width, with apex entirely blunt; valvae bent dorsally and tapered towards apex which ends in an acute tip, costal expansion wide; phallus bent upwards, tapered towards apex in lateral aspect, apical opening oblique, with narrow perivesical area in lateral aspect; juxta M-shaped.

Female. Unknown.

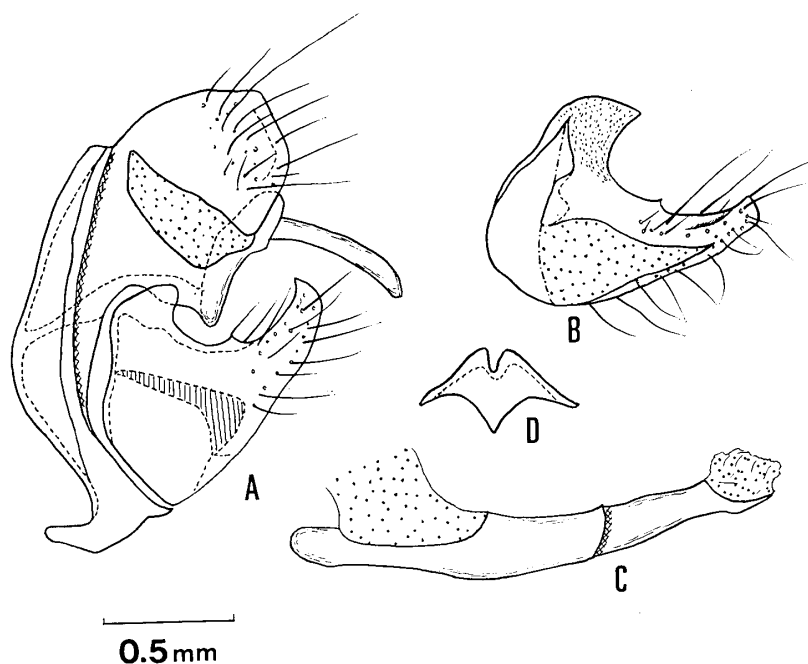


Fig. 52. *Narathura sakaguchii* sp. nov., male genitalia: (A) lateral aspect with phallus removed; (B) inner aspect of right valva; (C) lateral aspect of phallus; (D) juxta.

Distribution: Negros.

Holotype: ♂, Amlan, Dumaguete, Negros, 6. May, 1978.

The present new species resembles *Narathura pseudovihara* H. HAYASHI known from Mindanao, but differs from the latter in the following points: 1) The colour on the upperside is more bluish; 2) the tornal white cilia on the upperside of hindwing is shorter; 3) the costal spot in space 10 on the underside of forewing is present, while it is absent in *pseudovihara*; 4) the postdiscal band on the underside of forewing acutely curves above vein 4, while it does not in *pseudovihara*; 5) the postdiscal band on the underside of hindwing is slightly dislocated at vein 6, while it is completely dislocated at vein 6 in *pseudovihara*.

The specific name is dedicated to Prof. Kôhei SAKAGUCHI of Kyoto University.

Narathura aronya natsumiae H. HAYASHI, subsp. nov.

(Figs. 25, 26)

Female. Length of forewing: 17–18 mm.

Upperside: Bluish white, slightly tinged with purple, with narrow black border.

Underside: Dark brown, adorned with many conspicuous white stripes; forewing with long white basal streaks at the bases of costa and vein 12; hindwing with a white streak at the base of space 8.

Distribution: Negros.

Holotype: ♀, Negros, March, 1979; *paratype:* 1 ♀, Negros, 13, March, 1979.

The present new subspecies closely stands by subsp. *aronya* HEWITSON, s. str. of the same species known from Mindanao, but differs from the latter in the more bluish ground colour and the much narrower black border of the upperside of both the wings.

Narathura staudingeri negrosiana H. HAYASHI, subsp. nov.

(Figs. 27, 28)

Female. Length of forewing: 21 mm.

Upperside: Forewing with the purple blue area well developed; hindwing with very broad black border and the inconspicuous purple blue area almost confined to the cell.

Underside: Dark brown, with large dark spots edged with pale brown; on the hindwing, discal spots abnormal and those in spaces 6 and 7 enlarged and conjoining the spots in the centre of space 7 and cell.

Distribution: Negros.

Holotype: ♀, Negros, 1. May, 1978.

The present new subspecies is easily distinguished from subsp. *staudingeri* SEMPER, s. str. from Mindanao and Leyte by the much narrower black border on the upperside of forewing.

Narathura alesia mio H. HAYASHI, subsp. nov.

(Figs. 29, 30)

Male. Length of forewing: 18 mm.*Upperside:* Shining pale blue, with black border; tail simple, black, with the tip white.*Underside:* Pale brown on forewing and brown on hindwing; forewing with the postdiscal spots arranged in straight line, and those in spaces 4 and 5 enlarged a little; marking on the hindwing variegated and the postdiscal spots in spaces 6 and 7 enlarged and situated inwardly from the line.*Distribution:* Negros.*Holotype:* ♂, Negros, 1. May, 1978.The present new subspecies is easily distinguished from subsp. *alesia* FELDNER, s. str. from Mindanao and Luzon by the brighter blue upperside with narrower black border.

The subspecific name is dedicated to my daughter.

Flos setsuroi H. HAYASHI, sp. nov.

(Figs. 31, 32, 53)

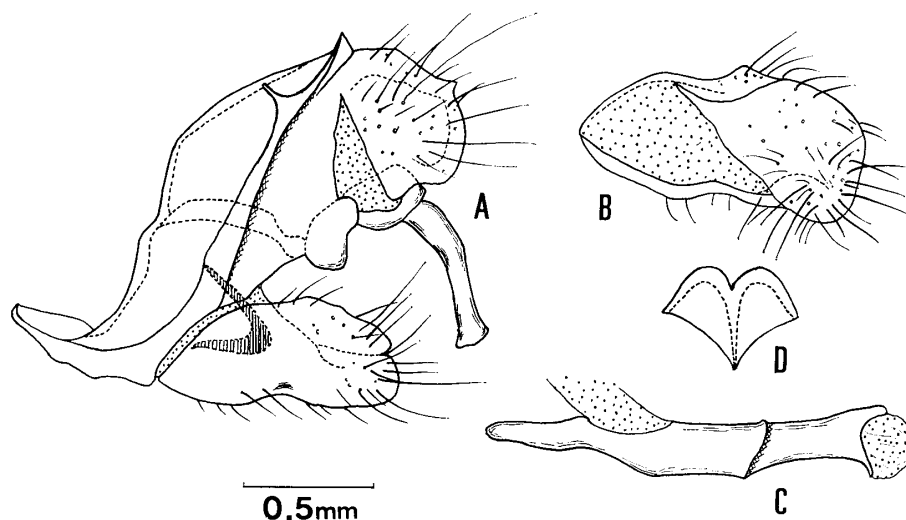
Male. Length of forewing: 25 mm.*Upperside:* Deep metallic blue, costal and distal margins narrowly black except for hindwing costa, which is broadly black; hindwing with short teeth at end of veins 1b and 3, anal portion of hindwing brownish grey, becoming darker upwards, tail single, black, with the tip white.*Underside:* Brown with obscure white stripes slightly tinged with purple and variegated as illustrated (Fig. 32); postdiscal area of forewing and apex of hindwing washed with purplish white; forewing with dark spot in basal area of spaces 4, 5 and 6;

Fig. 53. *Flos setsuroi* sp. nov., male genitalia: (A) lateral aspect with phallus removed; (B) inner aspect of right valva; (C) lateral aspect of phallus; (D) juxta.

hindwing with central spots, which are slightly washed with purplish white, in spaces 6 and 7, postdiscal stripes crenulate, stripes in basal half reticulated, tornal dark spots in spaces 1a and 2 partly crowned with bluish scales, dark spot and bluish scales in spaces 1b vestigial.

Male genitalia: Brachia gently curved ventrally with apex slightly broadened; valvae rather large, distal half lingulate, posterior margin not rounded; phallus rather long and slender, thick in the middle, distal portion of suprazonal portion slightly bent upwards, more or less expanding apically and projecting dorsally; juxta M-shaped.

Distribution: Marinduque.

Holotype: ♂, Bactigon, Bueno Bista, Marinduque, April, 1979; *paratypes:* 1 ♂, Boac, Marinduque, 15. February, 1973, R. M. LUMAWIG leg; 1 ♂, Boac, Marinduque, June, 1974, R. M. LUMAWIG leg; 1 ♂, Boac, Marinduque, June, 1976, R. M. LUMAWIG leg; 1 ♂, Boac, Marinduque, April, 1979, R. M. LUMAWIG leg; 1 ♂, Boac, Marinduque, June, 1979; 1 ♂, Binunga, Marinduque, June, 1979; 1 ♂, Binunga, Marinduque, August, 1979; 1 ♂, Binunga, Marinduque, January, 1980.

The present new species resembles *Flos anniella* HEWITSON, but differs from the latter in the following points: 1) Tailed (no tail in *anniella*); 2) the postdiscal band of the underside of forewing is broader and does not become narrower posteriorly (rather irregular and becoming narrower in *anniella*); 3) two striae in the postdiscal area on the underside of hindwing are concave outwardly, while they are convex in *anniella*.

This new species is named after Mr. Setsuro HASHIMOTO who gave me the privilege of studying the materials.

***Horaga albimacula katoi* H. HAYASHI, subsp. nov.**

(Figs. 33, 34)

Female. Length of forewing: 15 mm.

Upperside: Forewing with broad black area, pale blue basal third, and rather large white patch; on the hindwing, the pale purple blue area extending towards the part below the vein 6, but not extending to submarginal area.

Underside: Light brown, with the white patch as on the upperside; hindwing with narrow dark discal line edged with white and submarginal lunules which continue from tornus to space 5, and become smaller towards apex.

Distribution: Marinduque.

Holotype: ♀, Marinduque, July, 1979.

The present new subspecies resembles subsp. *anytus* STAUDINGER of the same species known from Palawan, but differs from the latter in the following points: 1) The white patch on the upperside of forewing is much larger; 2) the submarginal lunules in the spaces 3 to 5 on the underside of hindwing is greyish white, while they are pale metallic green in *anytus*.

The subspecific name is dedicated to Mr. Kin-nosuke KATÔ who was very kind to the deceased father of mine.

Pratapa tyotaroi H. HAYASHI, sp. nov.

(Figs. 35, 36, 54)

Male. Length of forewing: 13–15 mm.

Dorsum of forewing obviously convex in basal half. Hindwing with two tails.

Upperside: Deep metallic blue, with costal and distal margins black; forewing with costal black area broadly extending to cell-end and distal black area becoming narrower posteriorly; hindwing with a large brand, cell and base entirely black, tails black, with the tip white, a pendulous lobe at vein 1b.*Underside:* Greyish brown, with postdiscal series of darker streaks, which are outwardly edged with greyish white; forewing with a tuft of pale brown recumbent hairs at middle of dorsum; hindwing with two rows of submarginal markings, a black tornal spot surrounded by conspicuous orange area in space 2, another black spot partly crowned with orange and metallic blue on lobe.*Male genitalia:* Brachia long, gently curved dorsally and tapered distally; valvae rather slender, distal half lingulate with rounded posterior margin, costa projecting proximally; phallus large, suprazonal portion of aedeagus longer than subzonal portion, coecum short and conspicuously curved ventrad, apex of aedeagus with short perivesical area which penetrates into lateral walls of aedeagus, vesica obliquely opened; juxta large, O-shaped.*Female.* Unknown.*Distribution:* Marinduque.

Holotype: ♂, Bactigon, Bueno Bista, Marinduque, April, 1979; paratypes: 15 ♂, same as the holotype; 1 ♂, Nr. Boac, Marinduque, March, 1979; 1 ♂, Binunga,

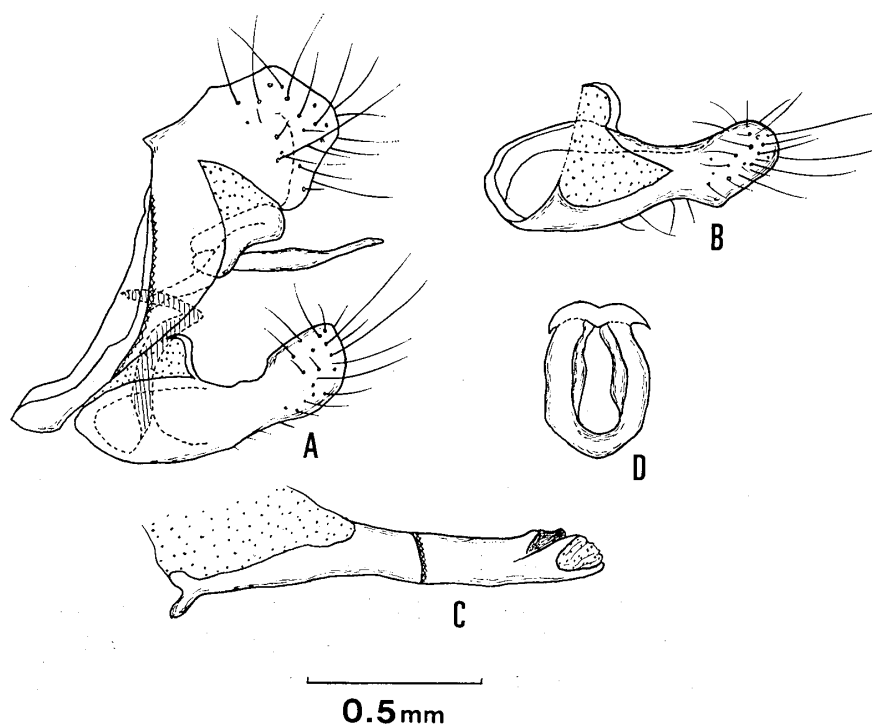


Fig. 54. *Pratapa tyotaroi* sp. nov., male genitalia: (A) lateral aspect with phallus removed; (B) inner aspect of right valva; (C) lateral aspect of phallus; (D) juxta.

Marinduque, March, 1979; 1 ♂, Nr. Boac, Marinduque, March, 1979; 1 ♂, Binunga, Marinduque, April, 1979; 1 ♂, Nr. Boac, Marinduque, May, 1979; 1 ♂, Nr. Boac, Marinduque, April, 1980; 1 ♂, Nr. Boac, Marinduque, May, 1980; 1 ♂, Binunga, Marinduque, May 1980.

The present new species resembles *Pratapa icetoides* ELWES, but differs from the latter in the following points: 1) The dorsum of the forewing is more convex; 2) the dorsal hair tuft on the underside of forewing is pale brown instead of yellow in *icetoides*; 3) the base of costa on the underside of forewing is concolorous with the ground colour, while it is ochreous in *icetoides*; 4) the postdiscal streaks in spaces 2 and 3 on the underside of hindwing are irregular, while they are rather regularly ranged in *icetoides*; 5) the submarginal markings on the underside of hindwing are more clearly defined.

This new species is named after the nickname of Mr. Yasusuke NISHIYAMA.

Neocheritra kurosawai H. HAYASHI, sp. nov.

(Figs. 37, 38)

Female. Length of forewing: 21 mm.

Upperside: Dark brown; hindwing with large black quadrate marginal and submarginal spots, and conspicuously blackened veins in whitened tornal area, a black spot in space 1a clothed with pale bluish grey, two tails at veins 1b and 2, the former being very long.

Underside: Forewing brownish orange which becomes paler basad; hindwing with apical area brownish orange, the rest of hindwing white, slightly tinged with pale orange except for tornal area, irregular broken black line in spaces 1a, 1b and 2, two tornal black spots in spaces 1a and 2 partly crowned with blue scales, black quadrate spot in space 1b generally covered with blue scales.

Male. Unknown.

Distribution: Mindanao.

Holotype: ♀, Tandag, Surigao, Mindanao, March, 1979.

The present new species resembles *Neocheritra amrita* C. et R. FELDER and *Neocheritra gertrudes* SCHRÖDER et TREADAWAY, but differs from them in the following points: 1) The veins on the white tornal area on the upperside of hindwing are conspicuously blackened, while they are not blackened in *gertrudes*; 2) the white tornal area on the upperside of hindwing is inwardly concave in spaces 1b and 2, while it is convex in *amrita*; 3) the white tornal area on the upperside of hindwing is much narrower than in *gertrudes*, and dusted with pale brown scales (pure white in *gertrudes*); 4) the black spot in space 1a on the upperside of hindwing is clothed with pale bluish grey, while it is not in *amrita*; 5) the brownish orange colour on the underside is lighter than in *gertrudes*; 6) the black line on the underside of hindwing is completely broken at each vein, while it is not broken in *amrita*; 7) the ground colour on the underside of hindwing is slightly washed with pale orange, while it is white in *gertrudes*; 8) blue scales in the tornal area on the underside of hindwing are conspicuous, while they are absent or obscurely present in *amrita*.

The new species name is dedicated to Dr. Yoshihiko KUROSAWA of the National Science Museum (Nat. Hist.) for his guidance and kindness.

Chliaria shirozui H. HAYASHI, sp. nov.

(Figs. 39, 40, 55)

Male. Length of forewing: 13 mm.*Upperside:* Deep blue; forewing with the colour becoming paler basad, with black border narrowed towards inner angle; hindwing with black border above space 7 except for basal area, filamentous tails at veins 1b and 2.*Underside:* Grey with pale ochre cell-end bars and postdiscal lines edged with white; forewing with postdiscal line slightly dislocated at vein 4, no costal black spot above cell; hindwing with postdiscal line completely dislocated at veins 4 and 6, a small black spot at base of space 7, conspicuous black tornal spots in spaces 2 and 3 partly orange-crowned.*Male genitalia:* Brachia very long, hooked; valvae small, simple and triangular, with the apex pointed, a pair of valvae completely conglutinated with each other at basal half; phallus large and slender, subzonal portion longer than the suprazonal one.*Female.* Unknown.*Distribution.* Mindanao.*Holotype:* ♂, Mt. Apo, Mindanao, January, 1980; *paratype:* 1 ♂, Mt. Apo, Mindanao, February, 1981.

The present new species resembles *Chliaria kina* HEWITSON, but differs from the latter in the following points: 1) The deep blue colour on the upperside of forewing becomes paler basad, while it becomes paler at the centre in *kina*; 2) the ground colour on the upperside is darker than that in *kina*; 3) the postdiscal line on the underside of hindwing is much narrower; 4) hindwing with pale orange tornal area, while there is no orange area in *kina*.

The new species name is dedicated to Dr. Takashi SHIRÔZU, Professor Emeritus of Kyushu University.

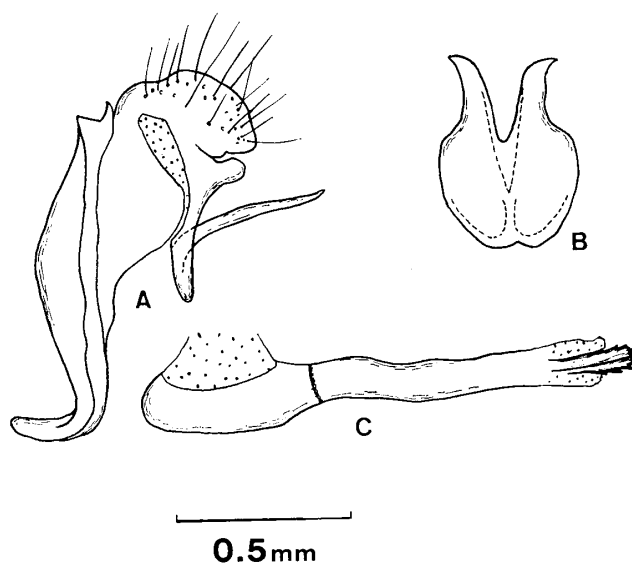


Fig. 55. *Chliaria shirozui* sp. nov., male genitalia: (A) lateral aspect of ring; (B) ventral aspect of valvae; (C) lateral aspect of phallus.

Sinthus mindanensis yoshiae H. HAYASHI, subsp. nov.

(Figs. 41–44)

Male. Length of forewing: 13 mm.*Upperside:* Black, with a slight dark purple gloss on the forewing visible only under certain lights, except for the shining dark blue area occupying the spaces 1c to 5 and the marginal area in space 6.*Underside:* White, with dark brown spots at the end of cell and the postdiscal band edged outwardly with white; hindwing with a narrow ochre stria edged outwardly with dark brown below the vein 4, and rather conspicuous tornal ochre.*Female.* Length of forewing: 13–14 mm.*Upperside:* Black, with a small white discal marking on the forewing.*Underside:* Much more whitish than in male, with narrower postdiscal band.*Distribution:* Negros.*Holotype:* ♂, Dumaguete, South Negros, 6. May, 1978; *paratypes:* 2 ♀, same as the holotype.

The present new subspecies resembles subsp. *stephaniae* H. HAYASHI, SCHRÖDER et TREADAWAY of the same species known from Mt. Kitanglad, North Mindanao, but differs from the latter in the more whitish ground colour of the underside, the narrower postdiscal band, and the broader and more prominent white striae.

The subspecific name is dedicated to the deceased grandmother of mine.

Acknowledgements

I am very grateful to Mr. Yasusuke NISHIYAMA who gave me an opportunity to study the materials dealt with in this paper, and to Mr. Colin TREADAWAY, Frankfurt am Main, West Germany, who gave me kind help and useful advices. Deep gratitude is also due to Dr. Yoshihiko KUROSAWA and Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, and Mr. Kazuhiko MORISHITA, Zushi City for their kind help in preparing the manuscript of this paper.